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CONSTRUCTING A SOCIAL PROBLEM: THE PRESS AND THE ENVIRONMENT*

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The U.S. daily press might seem to be in a strategic position to function as a claims-maker in the early construction of a social problem. But in the case of the manufacture of environmentalism as a social reality in the 1960's and 70's, the press was fairly slow to adopt a holistic environmental lexicon. Its reporting of environmental news even now only partially reflects concepts promoted by positive environmental claims-makers, such as planet-wide interdependence, and the threats to it by destructive technologies. The movement of environmental claims seems to have started with interest-group entrepreneurship using interpersonal communication and independent publication, gone on to attention in government, then finally—and incompletely—been put on the agenda of the daily press. Once on the press agenda, coverage of environmental issues may have improved. But there are some constraints, possibly inherent in the press as an institution, that limit its role in the incipient construction of some social problems.

A central task in developing a model of the emergence of social problems is explaining the process of translating personal concerns into collective issues. Spector and Kitsuse (1977) have argued that social problems are products of particular constructions of social reality, rather than, necessarily, of actual physical conditions. Some persons—variously called “moral entrepreneurs,” “issue energizers,” “concern innovators” or “claims-makers”—communicate their concern and the expectation of a solution to others, thus creating a social problem essentially in a process of social influence. If claims-makers are able to persuade others of the legitimacy of their concerns and are able to recruit early converts, a collective definition of a problem forms; and to the extent that collective definitions of problems come to supplant individualistic definitions, a social problem can be said to exist (Blumer, 1971).

Several scholars, e.g., Becker (1963) and Gusfield (1963), have studied the composition and interests of claims-makers concerned about a variety of social problems. And Nunnally (1961), Hartman and Husband (1971), Linsky (1971), Young (1971) and Roshier (1973) have looked specifically at how the news media have treated some social problems once the problems have taken on substance. But relatively little attention has been devoted to how initial claims-makers persuade others to share their concerns. Our study examines the role of the national press in the early construction and delineation of a social problem, especially whether the press reported the perspective of pioneer claims-makers in defining environmental problems as a new social reality (see Albrecht and Mauss, 1975). The study may contribute to easing what Gans (1972) has called a certain type of “famine in American mass communications research”—“how the media function as institutions.” Gans’ more recent work (1979) has already helped fill the void.

Let us define the terms in our title more precisely: With respect to *constructing a social problem*, we are talking primarily about the earliest stages in the process—conception and gestation,

* For their data base and editorial review, the authors are indebted to Ronald Holcomb and Daniel O'Meara. Armand Mauss, Jack McLeod, Malcolm Spector, Keith Stamm and the anonymous reviewers of this journal made very helpful comments on early drafts.

so to speak, rather than birth and nurturing. With respect to *the press*, we are dealing exclusively with daily newspapers and their personnel, especially in their information-processing roles. With respect to *the environment* we postulate five positive characteristics: a solid core of ecological content; a recognition of worldwide problems of crisis proportions; a component of conscience, of a person's value system; a commitment to private and public action; and a comprehensive rather than a compartmentalized approach to change in people-land relations (see Schoenfeld and Disinger, 1978).

POSSIBLE ROLES OF THE PRESS

Johnstone *et al.* (1976), following the lead of Cohen (1963), found a clear distinction in role definition between "neutral" journalists and "participant" journalists. The former are pledged to a "nothing but the truth" presentation of "verified" news that does not, at least, seem to reflect their personal values; the latter are committed to the "whole truth," an approach in which they can overtly intrude to seek out all ramifications, objective or subjective, so that all "relevant" information or opinion is presented. The first is the traditional and pristine professional view that those in the press are strictly reporters, passive and objective recorders of "real" events from which readers should draw their own inferences and conclusions. The second, of course, advocates that the press should play an active role in interpretation and in constructing social reality for readers (whether that happens or not).

There are also differing ideas about the actual effects of reportorial information-processing on readers, whichever role conception is emphasized. "The media do not merely transmit messages," Weiss (1968:77) suggests, "but structure 'reality' by selecting, emphasizing and interpreting events." Lang and Lang (1969:77) believe that "the mass media structure issues and personalities"; Gerbner (1972:158), that they are "cultivating images of society." McQuail (1977:72) emphasizes indirect influence such that the press presents "a consistent picture of the social world which may lead the audience to adopt this version of reality, a reality of 'fact' and of normal values and expectations"—the press "as an instrument of social power." Westergaard (1977:110) sees the press as part of a machinery "by which rival pressures and policy proposals are expressed, made known, brought to arbitration." Gurevitch and Blumler (1977:71) emphasize the ability of the press "to create images of social reality by which the public may structure their views of the world." Chaney (1977:450) argues generally that society is a humanly constructed and meaningful reality created and sustained through communication, "our version of what goes on around us," and more specifically that the press can "produce definitions of situations and sociably constructed realities" (see also Elliott, 1977).

More specific evidence that the press in its news columns can influence the social reality of the readers would, of course, be consonant with the role definition of the participant journalists. It is possible, however, that even they do not influence the social reality of the reader, and that "neutral" journalists do. If at least some journalists are active participants, newspapers clearly could function with some independence as early claims-makers in their news columns, identifying social problems and some solutions to them. Or, in covering early positive claims-makers themselves, the press could either support or reject certain claims. With respect to environmental issues, for example, news columns could reinforce or degrade the concepts positive environmental claims-makers intend to impart when they use environmental terms.

If claims-makers do make salient for others a particular aspect of social reality, they may do so in a crude sequence. There may be an initial stage of making claims about a putative problem or cluster of problems (Spector and Kitsuse, 1977). As the claims-makers communicate to attract early converts to the proposed point of view,¹ they are aided significantly if they can find a

1. Thus, information does not merely flow *to* groups; it may help *create* them. This hypothesis dates at least from Lippmann and Dewey in the 1920s.

distinctive term for their overall concern (see Van Buren, 1972), if only for the convenience of headline writers. Thus an examination of the evolution of a particular term can provide some clues to the recruiting activities of claims-makers in the early construction of a social problem, and to the role of the press in its delineation. The terms "environment" and "environmental" serve these purposes admirably, and will be used as a focus of our own study.

The most complete discussion to date of the development of "the environment as a social problem" is by Albrecht and Mauss (1975), who effectively outline definitions and interpretations, parameters of consensual reality, public opinion, champions and their interests, ecology as a social movement, and the legacy of environmentalism. But they tend to slight what is the central point of our paper—the absence of the press in the *early* stages of environmental claims-making. True, the press in the 1960s did consider some environmental issues, but they did so singly, rather than holistically. For example, as early as 1961, a *Milwaukee Journal* writer embarrassed the University of Wisconsin by charging that it had a "total lack of commitment to environmental education" (see Schoenfeld and Ross, 1978:452). In 1966 the same paper won a Pulitzer prize for its series, "The Spreading Menace—the Pollution of Wisconsin's Waterways" (Kienitz and Koshallek, 1966). In 1968 Robert Cahn won another Pulitzer for his classic *Christian Science Monitor* series on "Will Success Spoil Our National Parks?"² But these stories were written in ways marking them as updates of a bygone conservation movement, with few concepts from the new humankind-environment-technology system approach to ecological thinking. *The New York Times* did name an "environmental reporter" (Gladwin Hill) in mid-1969, but did not report the political intricacies in the emergence of the unprecedented National Environmental Policy Act in 1968–69, or its deeper social significance (Schoenfeld, 1979).

THE MAKING OF THE ENVIRONMENT AS A SOCIAL PROBLEM

In the 1960s, wanting to energize the public's awareness of what were early identified as "the four P's"—pollution, pesticides, population, and people's habits (Brennan, 1974)—the early claims-makers apparently sought some compelling words that would signify a new, much more comprehensive approach to what Leopold (1933) had called a "man-land ethic." Steadily there emerged "environment," "environmental," "environmentalist"—each an old technical term adapted to a new popular purpose.

The Change From the Categories of "Conservation"

Much earlier, the comparable terms were "natural resources," "conservation," and "conservationist," ones with reasonable operational utility and great respectability (see Hays 1959). But by the 1960s they were inappropriate at best and at worst misleading as ways of referring to the new ecological concepts.

For example, the old terms were associated with a "one-problem, one-solution" approach to resource issues (Odum, 1973), because as it became institutionalized conservation had also become compartmentalized. Under "conservation" in the *Readers' Guide to Periodical Literature*, for example, there are no listings for that term *per se*; one is directed to "see Forest, Soil, Nature, Wildlife, etc." As the nation identified various conservation problems, it created discrete legislative acts and administrative bureaus to deal with them, such as the Forest, Reclamation, Park, Fish and Wildlife, Soil Conservation, Land Management, and Water Pollution Control bureaus.

2. In 1968–69, Cahn was the only Washington correspondent to recognize and cover the significance of NEPA (Finn, 1973). He later became one of the three initial members of the President's Council on Environmental Quality created by the Act. The 1970 CEQ annual report he authored became the first standard reference on national environmental issues (Schoenfeld and Disinger, 1978). Now a Cahn (1979) book interprets the case of the snail darter versus TVA's Tellico Dam as signifying the ultimate arrival of a national ecological conscience, aided by a press that gave the issue quantitative (though not qualitative) coverage.

What one agency might do in its best interests could vitiate the work of another agency, and no agency served as referee. As a President's Advisory Committee reported (US, 1965:2), "Arrangements [to deal with conservation] have grown on a piecemeal basis. . . . The current organization is a hodgepodge." Clearly, "conservation" was not a term connoting applied ecology, a systems approach to resource management.³ "Environment," however, has its own extensive entry in the *Readers' Guide* today.

The term "conservation" had another flaw, its "boondock" overtones. Its universally recognized symbols had become Smokey Bear and contour plowing, both associated with open country—"out there." The environmental problems of the '60s, however, were as much urban as rural, and needed an overall concept large enough to include "city" and "suburbia" (Reid, 1970; Ezersky, 1972), not just the hinterland.

Certainly the conservation movement had involved and expressed a concern for the wise management of resources that might otherwise dwindle, but its major term was never used to imply an imminent threat to the human condition. What early environmentalists foresaw, instead, was humankind as the most endangered species of all. "Conservation," wrote Darling (1969:199), "has traditionally been concerned with natural resources, . . . but the science of applied ecology must now logically include the human species as an organism to be conserved." Zinn (1970) stressed that "conservation is no longer just the story of vanishing wildlife and vanishing wilderness areas. . . . As we stop and look at our total environment, it has taken on the meaning of human survival." And Marx (1970:951) asserted that "the philosophical root of the ecological perspective is the idea that man is wholly and ineluctably embedded in the tissue of natural processes," whereas the conservation movement had merely "attracted people with enough time and money to enjoy the outdoor life."

Perhaps "conservation's" most serious shortcoming, however, was its strong associations not only with a nice-Nellie type of nature study, but also with Depression pump priming, resource "development" and national defense. For new-breed ecologists espoused a sort of counter-culture that some might consider "subversive" because it called into question the sanctity of the GNP as a measure of national well-being (Shepard and McKinley, 1969).

In tracing the shift from "conservation" to "environment," we reviewed newspaper, periodical, and book indexes and other reference data, and concluded that the significant dates in the evolution of terminology specifically "environmental" appear to be these:

1959—Raymond Dasmann (1959) bridges semantic eras with a text called *Environmental Conservation*. (Dr. Dasmann was at the time a California wildlife ecologist who had an early vision of "the need for an integrated approach to the problems of the human environment." He was by no means the first to "consider the history of human populations in relation to natural resources, their present predicament, and their future outlook"; Marsh had done that as early as 1864.⁴ Nor was Dasmann the first to employ the term "environment" in an ecological sense; Aldo Leopold had done so in 1933.⁵ But Dasmann was the first to create "environmental" as a comprehensive label for a new or at least a revitalized view of humankind-nature interdependencies.)

3. "Environment" is understood to be "the system of interrelationships among society, economics, politics, and nature in the use and management of resources" (Gold, 1978:227).

4. George Perkins Marsh, *Man and Nature; or, Physical Geography as Modified by Human Action* (New York, Charles Scribner, 1864).

5. "Economic criteria did not suffice to adjust men to society; they do not now suffice to adjust society to its environment. . . . Civilization is a state of mutual and interdependent cooperation between human animals, other animals, plants, and soils, which may be disrupted at any moment by the failure of any of them" (Leopold, 1933:643).

- 1962—The earliest reference to “the environment” (in the Dasmann sense of the term) in a public document appears in a *Natural Resources* report to the President by the National Research Council.
- 1963—“Environment: A New Focus on Public Policy,” by Lynton Caldwell is published; the term “Environmental” first appears in Bell Telephone Directory Yellow Page listings (Cooke, 1978); and Stewart Udall’s U.S. Department of Interior annual report is titled *Quest for Environmental Quality*.
- 1964—“Total Education for the Total Environment,” a paper by Matthew J. Brennan is presented at an AAAS American Nature Study Society meeting (published 1974).
- 1965—*Future Environments of North America*, proceedings of a conference (Darling and Milton, 1965), and *Restoring the Quality of the Environment*, a U.S. government report are published.
- 1966—Faculty committees on “environmental studies” emerge in colleges and universities (Schoenfeld and Disinger, 1978). Resources For the Future publishes *Environmental Quality in a Growing Economy*.
- 1967—Prototype bills appear in Congress providing for a high-level “environmental quality council” (Finn, 1973); the American Academy of Arts and Sciences devotes an issue of its journal (*Daedalus*) to “America’s Changing Environment”; the Environmental Defense Fund is founded; and the American Institute of Architects sets up an “environmental education” committee.
- 1968—A unique House-Senate colloquium is held on a “national policy for the environment” (Committee on I and I Affairs, 1968); a prospectus is written for a *Journal of Environmental Education*; Barry Commoner’s *Scientist and Citizen* journal is restyled *Environment*.
- 1969—The National Environmental Policy Act (NEPA, Public Law 91-90) passes; Environmental Action, Inc. (see NSEA, 1970) is founded; *Time* introduces an “Environment” section in its 1 August issue.
- 1970—*National Wildlife*, originally dedicated to “the wise use of natural resources,” becomes pledged to “improving the quality of the environment”; *Fortune* devotes an entire issue to “The Environment”; Earth Day, 22 April, raises “environmental quality” into the consciousness of the general public and the daily press as a “social problem” (Dunlap and Gale, 1972; Schnaiberg, 1973; Sills, 1975).

THE PRESS AND EARLY ENVIRONMENTAL CLAIMS-MAKING

As appears apparent, the early chronology of environmental terminology featured books, journal articles, agency reports, convention speeches, citizen movements, Congressional acts, and specialized periodicals rather than newspaper coverage. It certainly seems that prior to 1969–1970 newspapers were slow to play much part in recognizing “environmentalism” (Pryor, 1972; Sellers and Jones, 1973; Witt, 1974). For example, Schoenfeld (1979) has described how not just the *New York Times* but newspapers generally tended to overlook the evolution and eventual passage of the National Environmental Policy Act (NEPA) in 1969, by any environmental standards a “landmark” piece of federal legislation (Finn, 1973).

Early environmental reporters had trouble with both the substance and the style of environmentalism. Because they had written about nature, or outdoor recreation, or science, or public affairs, or been on assignment beats, they had real difficulty comprehending and communicating the people-resources-technology system—the Marsh–Leopold–Commoner insight that “everything is connected to everything else.” They found it especially hard to recognize and describe sound, fair trade-offs among energy, economy and environment. This was an era of a journalism of uncertainty (Schoenfeld, 1980).

Then *Fortune* magazine in 1970 anointed “The Environment” as “The National Mission of the ’70s” and “the environment” and related terms increasingly entered the press’ lexicon for labeling the new way of looking at humankind–habitat relationships. By 1971, editorials on environmental issues were common (Dennis, 1978).⁶

What was it that finally vaulted the press into the environmental decade? Rachel Carson’s *Silent Spring* in 1962 has been described (Trefethen, 1975) as “the blockbuster” that first alerted America to environmental hazards. It did that, but it was still essentially a single-issue approach. Lynton Caldwell’s “Environment: A New Focus for Public Policy” in 1963 was a catalytic paper, but reached only a scholarly audience. So did the “Future Environments of North America” symposium in 1965. The unique House–Senate colloquium on “A National Policy for the Environment” in 1968 prodded Congress but received minimum press coverage. Some sociologists have seen the big coverage of the Santa Barbara oil spill in 1969 as triggering massive environmental concern, but others have attributed the rise of a public environmental awareness to the media’s extensive attention to Earth Day.

We would agree, however, with Roth (1978), that the single most effective environmental message of the century was totally inadvertent—the 1969 view from the moon of a fragile, finite spaceship earth. That sight made much clearer Adlai Stevenson’s verbal image a decade before: here we are, partners on a very small planet, with nothing between us and infinity but what we have and make of it. It was a powerful visual message, indeed, one highlighted especially by Walter Cronkite and the CBS Evening News, and later fixed in people’s minds by its appearance on posters and buttons. By conquering the frontier of outer space, Americans seemingly discovered another frontier, the search for a state of harmony between humankind and the only earth we have; and reporters and editors watched—and responded.

But did the daily press really reflect positive environmental claims-making once its journalists had entered an environmental decade? To address that question more empirically, we must first settle more specifically just what concepts were implied in the term “environmental” as positive environmental claims-makers seem to have used it to construct a social problem. A comprehensive set of such concepts was summarized this way in the first issue of *The Journal of Environmental Education* in Fall 1969:⁷

In locus, the fouled, clogged streets of the city quite as much as the scarred countryside.

In scope, a comprehensive, interrelated humankind–environment–technology system.

In focus, global environmental impacts of crisis proportions threatening the well-being of an over-populated planet.

In content, tough ecological choices, not easy unilateral fixes.

In strategy, long-range impact analyses and rational planning.

In tactics, grass-roots participation in resource policy formation—in the streets and through institutional channels.

In prospect, a necessary reliance on alternative sources of energy.

In philosophy, a commitment to less destructive technologies and less consumptive lifestyles.

In essence, a recognition of pervasive interdependencies, that everything is connected to everything else—what Perlinski (1975:50) has called “the principal intuition of the 20th century.”

6. By 1972, sociologists had begun to recognize “environmental sociology” as “a new paradigm.” See Morrison *et al.*, 1974; Catton and Dunlap, 1978.

7. Schoenfeld, 1969:1–4. Ecologist “claim-makers” quoted include Durward Allen, Matthew Brennan, Charles Dambach, Samuel Dana, Raymond Dasmann, Gordon Harrison, Roderick Nash, Ruben Parson, Frederick Sargent, Joseph Shomon, and Stewart Udall.

It would be a mistake, of course, to assume that all of these concepts have been shared equally by all the individuals, groups and agencies flying an environmental flag. Yet it would be an equal mistake not to concede that some glimmering of an ecological conscience has illuminated some public discussions and inspired some public actions. Has the press participated extensively in engendering that conscience, carrying out what Molotch and Lester (1974) call the role of newsmaking as "purposive behavior?" To what extent have newspapers utilized the concepts just listed as crucial to the social reality pictured by early positive environmental claims-makers?

DATA FROM STUDIES OF NEWSPAPER COVERAGE OF ENVIRONMENTAL ISSUES

First, have reporters and editors heeded Udall's (1963:xii) emphases on taking the environment "out of the countryside and into the city?" The Tichenor *et al.* study in Minnesota (1973a) showed that what people learn and what attitudes they develop depend most on whether they live in the city where the problem exists. Yet studies of environmental coverage in Oregon (Hungerford and Lemert, 1973), Kansas (Althoff *et al.*, 1973), and North Carolina (Murch, 1971) show that, in those states at least, newspapers and other news media may tend to report pollution issues more readily if they are not local. Murch even posits a relationship between such media behavior and tendencies of the public in Durham to perceive air pollution as more severe elsewhere (increasingly as the reference was further away from Durham), despite scientific measures classifying air pollution in Durham at the time as more severe than the national average. Harris (1970) found a similar situation in Oregon.

Perhaps the varied ways information can be processed by the media can account for some of the varied aspects of environmental frames of reference found in many studies (e.g., Horn, 1969; Stamm, 1970; Consantini and Hanf, 1972; Buttel *et al.*, 1974; Harrison and Sarre, 1975). The structure of the reporter's information-processing role, or beat, and his environmental social reality, may be especially important to study. In 1972, Witt (1974) sent a questionnaire to all reporters who volunteered their names for a list of environmental reporters published in 1970 in a leading trade journal. Among his findings were that the reporters were perturbed that they could not define environment well for themselves or for their readers. Such vagueness may suggest the potential for public confusion on environmental cognition and frames of reference.

To gain better understanding of such aspects of roles on news staffs, Griffin (1977) set up a survey based on the "leads" to 30 hypothetical news stories. The topics ranged from ones with strong rural to ones with strong urban overtones, all of which had some "environmental" angle. He sent this questionnaire (in 1974) to a probability sample of 394 of the 1,774 daily newspapers in the United States, as listed in the 1974 *Editor and Publisher Yearbook*. An accompanying letter instructed the managing editor to give the questionnaire to the newsperson on the staff most likely to cover "environmental" news. Griffin received 105 replies (27%), biased somewhat toward larger papers with established environmental beats, but also including generalists who cover environment (about half the respondents), mostly on smaller papers. (His special validation questions generally supported the respondents' roles as primary environmental news "gatekeepers" on their staffs.) The respondents rated each hypothetical news story on separate Likert-type scales according to 1) how important the story was, 2) how "environmental" the story was (as compared with other kinds of news), and 3) how likely it was that they, rather than some other reporter, would cover the story. Separate factor analyses of each set of scales disclosed three primary and correspondent factors: "Resource Use (or misuse)," "Observation (or appreciation) of Nature," and aspects of the "Urban Milieu."

In 1977, Holcomb did a very similar study in Wisconsin, querying all environmental reporters and all editors on the roster of all daily newspapers in that state. Replies were received for 26 of 33 environmental reporters (79%) and from 22 of 35 editors (63%). The factor results were essentially the same as in the initial study, reinforcing its validity and reliability.

Unfortunately, there are no data to establish whether the existence of the “urban milieu” factor actually represents a change from what might have been found five or ten years earlier. But these two fairly recent studies do suggest strongly that not only the traditional, rurally-based “resource use” and “nature” orientations but also more urban ones are now a part of the somewhat fluid social reality of the environment perceived in at least some newsrooms today.⁸

But what of the other concepts environmental claims-makers attempt to impart in their use of the term? How have U.S. newspapers dealt with many of the other such concepts summarized in that valuable list from *The Journal of Environmental Education*?

In 1978 O'Meara (1978) analyzed the environmental content of the *New York Times* (NYT) and the *Chicago Tribune* (CT) from 1962–1977, studying 24 randomly selected weekday issues each year. He chose those papers as reasonably representative of the U.S. press as a whole. Any such choices would be somewhat arbitrary, of course, but these were not wholly so. Both papers are well-established, widely read, and rated highly by evaluators of U.S. dailies (Merrill 1968), but have very different geographical and political perspectives. Both employed specialized environmental reporters in 1969 (*Editor and Publisher*, 1970). Cirino (1971) argued that NYT's reportage was consistently perhaps the most comprehensive in the country, making it reasonable to assume that if a significant national event or issue escapes NYT's attention, it will also escape that of the daily press as a whole.

O'Meara examined only environmental news and feature stories, not editorial comment. To qualify as “environmental,” a story had to encompass in a *positive* way at least one of the key concepts espoused by early environmental claims-makers, as listed previously in this paper. His are the best available data of this type.⁹

One trend O'Meara investigated was whether the arrival of “the environmental era” led to more column inches of environmental stories reporting “side effects,” stories acknowledging the interrelatedness of the humankind–environment–technology system by linking two or more environmental issues. For both dailies there was a significant increase from the period 1962–1968 to the period 1969–1977 in the proportion of column inches on discrete environmental issues that mentioned side-effects.¹⁰ There was a special surge in column inches linking two or more broad environmental topics in both papers in 1970–71. In those years, at least in the NYT and the CT, environmental reportage did adopt the comprehensive scope of the environmental claims-makers. Even though the space devoted to such environmental stories declined in both papers after those peak years, it was not to pre-1968 levels.

What of the environmental concept of an impending worldwide human overpopulation problem approaching crisis proportions, a problem some ecologists have labeled as the most serious facing the world (e.g., Ehrlich and Ehrlich, 1970)? O'Meara found that neither the NYT nor the CT gave much attention to this issue, either before 1970 or since. The reasons are not clear; it may not be deemed worthy of much attention, there may not be recurring local or national news pegs to add to its salience, or references to birth control may be tabooed in the newsrooms. On this issue, then, such newspaper coverage does not seem to have contributed to the construction of a social reality sought by early environmental claims-makers. Interestingly, Simon (1971) found that Illinois residents made no connection between the issues of population and pollution.

8. In a concurrent North Carolina study, Clary *et al.* (1977:52) also found that opinion-makers in that state give higher priority to environmental “problems that plague urban areas” than to yesterday's “wildlife and natural area conservation aesthetic concerns.”

9. Despite all these disclaimers, we still have to admit that such data could be skewed because the figures are for only two papers, not the U.S. press as a whole. As a hedge against bias, we assume in our analysis that the NYT is a better indicator of what the press may have missed than what the press included in its coverage.

10. We use the term “significant” here in a statistical sense. We computed a difference of means test between the eras reported in Figure 1. We found an F of 16.94 ($p < .001$). For space reasons, the complete analysis is not shown here.

What of the space each paper gave to another measure of impending crisis, the tendency of the natural or manufactured substances people put into the ecosystem to threaten environmental solvency or human health on a massive scale? Coverage of that issue in both papers showed a marked peak in 1970–71; thereafter it received only intermittent attention.

Has the reportage in these papers probably supported the fundamental strategic concept of long-range environmental impact analysis and rational planning? On this issue, O'Meara's evidence is equivocal. No public document so epitomizes the concept as the federal National Environmental Policy Act of 1969. In fact, in 1977 the Wisconsin editors he surveyed told Holcomb that NEPA really had stimulated their environmental coverage by "officializing" environmental issues. But O'Meara's analyses of 1962–1977 coverage in the NYT and the CT found very little evidence of attention to NEPA or its instrumentalities after its passage in 1969. It could be, of course, that environmental writers are well aware of "the profound impact" NEPA has had "on agency decision-making" (Finn, 1973:296), but that they seldom rehearse that role in their news stories.¹¹

But these two key papers do seem to have emphasized public participation in resource policy formation. Beginning in the late 1960's and early 1970's, O'Meara found an increase in NYT and CT stories about individual and group action to "dramatize and battle pollution" and to seek court redress where natural amenities were threatened. (In his 1977 survey, Wisconsin newspapers told Holcomb the popular environmental movement was still rating coverage in their papers, although not quite on the same scale as earlier. Action by the general public had apparently been upstaged somewhat by new federal and state environmental protection agencies.)

Did the daily press frequently relate burgeoning—even conspicuous—consumption of energy in this country to a finite supply? More specifically, did reportage reflect the coming energy crunch predicted by environmentalists as early as the 1960s? Apparently not: O'Meara found little or no coverage of energy resources issues until 1971. It then increased a bit until 1973–74, when it shot up to more than twice the lineage as in 1972—probably in direct response to Arab oil embargo news pegs, not to any particular foresight.¹² Energy coverage then declined until 1977 when President Carter's "moral equivalent of war" claim returned the issue to the press agenda. (When asked if energy issues had had an effect on environmental coverage, Wisconsin reporters and editors told Holcomb that the energy crunch had provided them with "new local news pegs" on such topics as home insulation, energy conservation, alternative sources of energy and transportation modes. So, in Wisconsin, the dailies apparently did not anticipate the resource scarcity issue, but did quite a bit with it once it surfaced elsewhere.)

What of the truly crucial environmental concept (e.g., in Udall, 1963) that there are inevitable limits to growth in an ecosystem of finite resources—for flora or fauna or plain folks? Adjusted for changes in the "news hole,"¹³ the total column inches of environmental coverage in the issues of the NYT sampled by O'Meara rose from 119 in 1962 to 1259 in 1970, and then declined to 683 in 1977. For CT the comparable figures were: 1962, 70; 1970, 1036; 1977, 791. Such data seem to suggest that this environmental reportage itself has inadvertently demonstrated there are indeed limits to growth!

11. NEPA has in fact drawn mixed reviews. For example, because it has energized "a staggering amount" of litigation in the courts and hence wasted resources in "producing papers," Fairfax (1978:743) has damned NEPA as "a disaster in the environmental movement." But President Carter (1978:A17) would seem to have expressed a consensus when he recently asserted that NEPA has had "a dramatic and beneficial influence on the way new projects are planned."

12. Dangerfield *et al.* (1975) discovered a similar lack of foresight on the part of news magazines in anticipating the 1973–74 energy crunch.

13. "Newshole" is newsroom parlance for the total column inches of "white space" available to the editor after column inches devoted to advertising have been preempted by the advertising manager. Obviously, this "newshole" varies somewhat issue by issue.

Assuming NYT and CT data are reasonably representative of the U.S. daily press as a whole, it may be generally significant that, once environmental reporting was in the newsroom "beat" structure, the level of NYT and CT environmental coverage in 1977 was markedly above the 1962 base-point. Whether daily press "routinizing" (Tuchman, 1973) will continue to support the 1977 level of environmental reportage may well hinge on how vigorously contemporary environmental and energy claims-makers try to influence other people to accept their view of social reality, and on some newsmen continuing to "negotiate" social reality (see Molotch and Lester, 1974).

THE DAILY PRESS: WHY MORE THERMOMETER THAN BAROMETER?

It seems apparent from the chronology of environmental terminology that communication media in general can indeed participate in an active, not an antiseptic, role in the construction of a social problem. But what of the role of the daily press *per se*?

A number of theoretical models have been constructed to describe the movement of information from one social system to another. Kaufman (1972) and Kotler (1972) seem to support the view that information about "change goals" is disseminated by claims-makers to the communications subsystems and thence to the public and the government. Tichenor *et al.* (1973b:271), on the other hand, posit that the flow is "from professional and interest group concern through independent publication and attention in government to mass media attention and public concern." The data we have so far reviewed—from our own environmental terminology chronology study and in the review of O'Meara's NYT and CT analyses—both tend to support the latter information diffusion model.

Still the press has not been irrelevant to the apparent success of environmental claims-makers: it has played a role in the tripartite audience-media-society mix (see DeFleur and Ball-Rokeach, 1975). In their treatment of environmental issues, some newspapers have apparently either reinforced or retarded the activities of various environmentalists. For example, a California editor has observed that in his city a slacking off in environmental reportage has led to a decline in popular environmental action, while an Illinois reporter attributes environmental ordinances in his city to the extensive press coverage given "the squeaky wheel of environmental activists" (Schoenfeld, 1980).

But to deal with the role of the press more systematically, it is possible to interpret development of NYT and CT environmental reportage in its relationship to Spector and Kitsuse's (1977) "stages in the natural history of social problems." The first is the early making of claims about a putative problem, the recruitment of strategic support, the creation of a political issue. In the second, there is official recognition of the problem and the establishment of an agency to respond—for example, the National Environmental Policy Act, the Environmental Protection Agency. In the third, claims and demands by the original groups or by others reemerge, and dissatisfaction is expressed with the established procedures for dealing with the imputed conditions—such as acrimonious debate over "environment vs. energy" (see also Zald and Ash, 1966). A possible fourth stage is one in which complainant groups lose all confidence in the official agency or agencies and seek to create counter-institutions—the "Sun-Day" impetus, for example. As the graph in Figure 1 indicates, in the formative stage of the environment as a social problem, the daily press appeared to function as more of a thermometer than as a barometer in chronicling the rise of environmental concern. But once they were on the newsroom agenda, some environmental affairs were increasingly called to public attention, at least in the CT and NYT.

Some other sociologists have strikingly, albeit inadvertently, suggested that persons' conceptions of social reality can be importantly influenced by newsmen. Lyman *et al.* (1973:474), for example, attributed the "sudden emergence" of "the pollution issue" to the Santa Barbara "oil

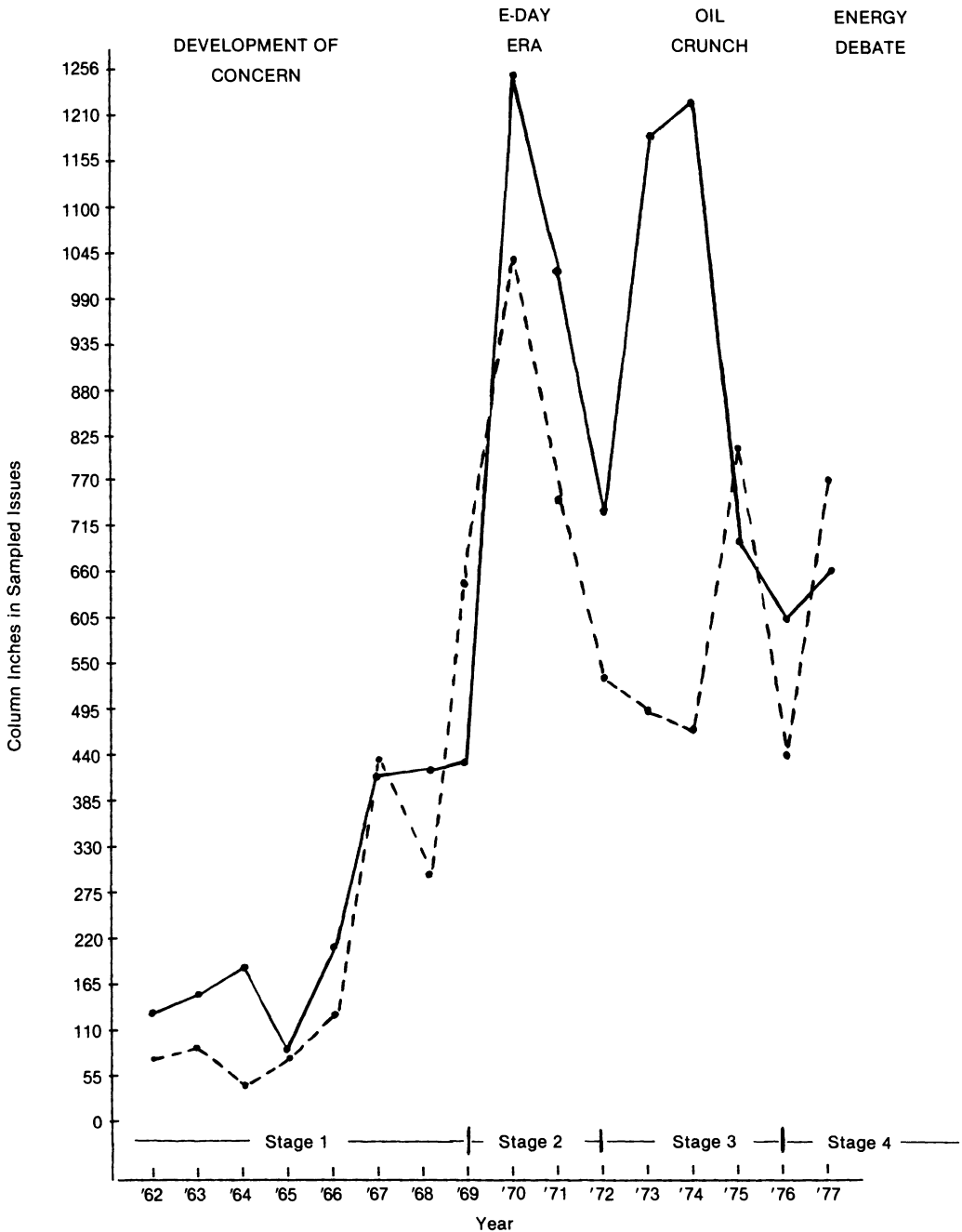


FIGURE 1

Trends in environmental reportage for the Chicago Tribune (---) and the New York Times (—) (from O'Meara, 1978), plotted against "stages in the natural history of social problems" (Spector and Kitsuse, 1977).

slick disaster” and its “intense media coverage” as “the generating symbol of eco-activism.”¹⁴ But others such as Harry *et al.* (1969) have traced the rise of environmental action back to mountain-climbing groups prominent in the news in the Pacific Northwest. Morrison *et al.* (1972) saw Earth Day 1970 as the touchstone of environmentalism, emphasizing that the Earth-Day concept was pioneered and extensively covered in Ann Arbor, Michigan. Yet two Canadian sociologists (Sewell and Foster, 1971:123), with a more global orientation, see “support for environmental improvement” as “international” in its origins.

These various (e.g., regional) viewpoints at least suggest generally the idea that the “real world” is in part what convenient communication media help us see and hear. But the bulk of the most systematic evidence we have discussed so far suggests more specifically that, if the NYT and CT are representative, the daily press does not seem initially to have operated as effectively as did other modes of communication in this society—interpersonal, conversations, newsletters, the proceedings of scientific associations, the publication of journal articles and books—to provide early environmental claims-makers a platform and help define the core concepts of the emerging social problem. At least in the case of the construction of environmental degradation as a social problem, the daily press appears to have been a somewhat tardy and halting adopter of views already conceptualized and considerably discussed elsewhere.

But why was the daily press more thermometer than barometer? Past social research can supply seven overlapping lines of explanations worth considering here at some length because of their general significance.

1) *Encountering Pressures from Publishers*

Breed (1955), for example, described a potentially pervasive albeit subtle influence that newspaper publishers have on “news policy,” through a process of “social control in the newsroom.” It is evident that, beginning with vicious press attacks from the chemical industry on Rachel Carson and her *Silent Spring* in 1962, what was to become the environmental movement was (and is) often viewed by many conservatives as anti-business, even anti-American (see Allen, 1970). To the extent they are representatives of “the system,” newspaper publishers may very well have been reluctant to provide a platform for the early advocates of environmentalism. (When Earth-Day in 1970 inadvertently coincided with Lenin’s birthday, some publisher suspicions could have been confirmed.) Sellers and Jones (1973) and Schoenfeld (1980) both found reporters who had felt publisher pressures to dilute environmental coverage. One said, for example, “Part of the reason for my leaving [city] was my publisher’s discovery that environmental writing is not noncontroversial. I had won several prizes for coastal-protection reporting—reporting later repudiated in editorials.”¹⁵

2) *Accommodating to Rural-Urban Differences in the Press’ Role in Conflict Resolution*

Donohue *et al.* (1972), however, argue that the press’ role in a social system is instrumental to conflict resolution, tension control and community cohesion. They suggest that reporting conflict in the press can reach a level potentially dysfunctional to the social system of a community more readily in a small town than in a large city, and that because tension and conflict are best handled interpersonally in the small town, the press there assumes more of a “boosterism” or cohesion-

14. Funkhouser (1973:536) used Santa Barbara as an indication that “the amount of coverage of an issue [does] not necessarily bear any resemblance to the behavior of the facts of that issue.” The spill was very photogenic—and within easy reach of TV network cameras, but in terms of its sustained impact on coastal zone ecology, the spill was “over-reported.”

15. In describing the rise of an environmental counter-movement in the Southwest, Albrecht (1972:4) quoted newspaper editorials accusing “various ‘concernationist’ groups [of] doing the work of the Communists in curtailing electrical power production in the United States.”

building role, eschewing reports of local conflict within the social system. In the larger, more pluralistic social system, they maintain, because the press serves as a liaison among conflicting subsystems it contains more conflict-related information, although the large city press must also perform some distribution control of information which would dissipate tension and reinforce social cohesion. This model may suggest the dynamics behind the results of studies conducted in predominantly rural places such as Oregon and Kansas which found evidence of environmental "Afghanistanizing"—that is, the early tendency of the press in those studies to "deal with the problems of the community 'up the road apiece' rather than with local issues" (Hungerford and Lemert, 1973:475). Its explanation of Murch's (1971) findings in Durham, North Carolina, also already mentioned, are less readily apparent, however. Griffin (1977), in the study of daily newspaper environmental reporters noted earlier, found that reporters in small cities are much less likely than those in large cities to consider any form of pollution coverage as at least one of their main approaches to covering environment, even though both agreed about equally that some form of pollution is a significant problem in their communities.

3) Meeting Criteria for Interpreting Events as News

Using Hall's (1973) three basic criteria of "news," would suggest a less conspiratorial hypothesis. Unlike the 1969 Santa Barbara oil spill, most environmental degradation was seldom linked with (a) an interesting, unusual, and/or significant (b) event (c) occurring in the past 24 hours. It was more like the slow evolution of the moonscape than a spectacular landing on the moon. Also, prior to 1970 there were no comprehensive government agencies to help "stage" environmental events. Without a series of news events to refer to, reporters could not really see the environment as a holistic concept until NEPA and Earth-Day made "news" (cf. Elliott, 1974).

News is not a pure cultural product, but "the product of a set of institutional definitions and meanings, which, in the professional shorthand, is commonly referred to as 'news values'" (Hall, 1973:90). It simply took time for holistic environmentalism to acquire news value in U.S. city rooms, despite the diligence—indeed, stridence—of early claims-makers. But categories of news, consistently produced over time, do tend to create space in the media (Hall, 1973). Once such a legitimate news category has come into existence, different orders of meaning and association can be made to cluster together, and produce more media space. Hence the discovery of "the environment" as a social problem in 1969–70 had an effect on "news values," perhaps an even greater effect than environmental events would justify at any one time. Indeed, Chase (1972) has argued that amateur "eco-freaks" borrowed McCarthy-like tactics to generate phoney Earth-Day crises to jolt the public and were abetted by a press suddenly compliant with environmental claims-making.

4) Fitting the Daily Rhythm of the Press

Galtung and Ruge (1973) would explain the glacial emergence of environmental issues in a related way: every event has a "frequency," a time-span needed for the event to unfold itself and acquire meaning. The less similar the frequency of the event is to the frequency of the news medium, the less likely it will be recorded as news by the news medium. The naturally slow process of environmental degradation was simply out of phase with the day-by-day time-frame of the press, prior to 1969. Once environmental issues burst into the consciousness of the daily press, however, we see what Rock (1973:77) calls a "self-generated paradigm": the environment became news simply because newsmen said it was news, with a resulting marked climb in coverage, also evident in Figure 1.

5) Coping With Class Differences in Content and Style of Communication

Another possible explanation for the slow press recognition of holistic environmental news is

what might be called the lack of “class consonance” between early environmental claims-makers and reporters-editors. Earlier analyses of “moral entrepreneurs” (e.g., Gusfield, 1963) suggest the importance of class consonance between claims-makers and agenda-setters. Almost without exception those voicing early warnings were university scholars¹⁶—the Allens, Caldwells, Coles, Commoners, Dasmanns, Ehrlichs, Hardins, Leopolds, McHargs, Osborns, Rienows, Stronges, Whites, Vogts—the list is long and distinguished (see Schoenfeld and Disinger, 1978). They formed quite sophisticated interest groups and, of course, tended to publish initially in scholarly journals, often deliberately avoiding capturing press attention lest their colleagues criticize them for “popularizing” complex subjects. Such scholars do not readily fraternize with press people, or *vice versa*. Schoenfeld (1980) quotes one reporter who labeled such early environmentalists “pretty feckless—they didn’t know how to stage media events.” Another said “they had no imagination,” a third, that they were “nothing but common scolds.” Early environmental claims-makers and the working press quite clearly worked in different social worlds.

What is more, the press tends to cover events and not necessarily their meanings (Epstein, 1973), particularly when those meanings are as obscure as were those of early environmental events. In trying to be (or seem) objective, the press tends to be skeptical in its news columns, not jumping on every bandwagon. Editors may have been wary of early environmental claims-makers because they seemed too much like flying-saucer fanatics. By 1969–1970, however, adroit old-line conservation organizations and their public relations people were reoriented more toward the environment. Environmentalism was institutionalized in many government departments and commissions—federal, state, regional and municipal. Once those bureaucracies were staffed with professionals and managers in class consonance with reporters and editors, “the environment” changed quickly and markedly. Environmental issues gained stable press salience both because the issues had become professionalized—“de-scholared”—and because they had been placed in the care of people who not only “spoke the same language” as reporters and editors but were adept at creating the interpersonal communication that leads to space in the press.

This is not to imply, of course, that all social problems must first be legitimized by sophisticated interest-group concern and by attention in government before attracting press attention, nor that sophisticated interest groups can always eventually get their concerns on the press agenda. We are merely noting that, again, the “information diffusion” model developed by Tichenor *et al.* (1973) is accurate in this case, of the evolution of holistic environmentalism as a social problem.

6) Coopting News Promotion Processes

But there is also another factor to consider in trying to explain such a development. Initially there were virtually no “card-carrying” environmentalists in the working press, but by 1969–70 they had begun to infiltrate, as it were, and to engage in environmental reporting as purposive behavior. In considering such processes generally, Molotch and Lester, deemphasizing the objectivity of “reality,” emphasize that events—“news”—are the result of practical, purposive and creative activities on the part of news promoters, news assemblers and news consumers. (By “promoting,” they mean that “an actor, in attending to an occurrence, helps to make that occurrence available to others” [Molotch and Lester, 1974:101].) Boorstein (1961) and others have somewhat similarly emphasized that the general role of PR people is that of arranger of staged events and, in this case, to an important degree “the environment” itself was the creation of Senator Gaylord Nelson, Denis Hayes, and the other organizers of Earth-Day. That sort of pro-

16. As a matter of fact, virtually all of what were to become the concepts of environmentalism had been outlined—without use of that term—by scientists in three books appearing simultaneously as early as 1948–49: Aldo Leopold’s *Sand County Almanac*, Fairfield Osborn’s *Our Plundered Planet*, and William Vogt’s *Road to Survival*. Neither the press nor the public paid any attention at the time (see Nash, 1978).

motion is by now a commonplace, but it is still strange to many to conceive of what we term reporters, for example, as news promoters or arrangers, not merely as assemblers. But some environmental writers and their editors quoted in Omohundro (1977:2), for example, are very conscious indeed that a reporter can literally "make things happen." Schoenfeld's study (1980) of environmental reporters makes it clear that many see themselves today as participants in a public policy-making process.

7) *Fitting the Press "Beats" that Routinize News Production*

Tuchman (1973) has offered what is probably the most powerful line of explanation pertinent here in showing how newsmen systematically decrease the variability of happenings that form the raw material of news, in order to process unexpected events routinely and expeditiously. One essential "routinizing" device is the assignment of "the beat"—courts, city hall, education, business, farm and so on. The problem with "the environment," as we have indicated, was that it was too broad to fit neatly or consistently into any one conventional beat. As an environmental reporter has described "a classic environmental story," it was "a business-medical-scientific-economic-political-social-pollution story" (Schoenfeld, 1980). That "the environment" defied routinization might alone explain why the daily press was slow to get into the complicated subject at any depth. The difficulty involved was something like the plight of the typical city editor faced with providing responsible coverage of LSD phenomena, as outlined by Braden (1973). Who might be assigned to LSD? The medical writer? The religion editor? The police reporter? The new cub reporter with a degree in sociology? The travel editor experienced in "trips?" Stories about the environment had no clear place to go in newsrooms until "the environment beat" emerged in 1969–70 (see Halmos, 1969, and Tunstall, 1970).

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Through some combining and reordering of this review of general factors affecting the speed, scope, depth and style of press coverage of environmental news, we can try to identify five "pre-disposing conditions" helping determine the general extent of daily press involvement in the *early* phases of the construction of a social problem:

First, the problem probably must be such that claims-makers can provide the press with a continuing series of "news" events befitting newsroom values.

Second, the problem probably must be indigenous to one of the established stylized "beats" routinely employed by daily newspapers.

Third, early claims-makers and editors-reporters must have some class consonance, if not in political-economic interests at least in modes of communication and in ease of social and vocational contact.

Fourth, participant-type journalists must infiltrate newsrooms rapidly.

Finally, and perhaps most speculatively, the claims-makers and their proposed solutions must not be viewed by publishers as representing a serious economic threat.

MORE RECENT ASSESSMENTS OF THE PRESS AND ITS ROLE

That we can identify such an array of interacting conditions needing refinement in further research, does not imply, of course, that it is necessary for the daily press to contribute much to early claims-making in order for a social problem to emerge and develop. All of our earlier sections showed in various ways that environmentalism came about because "issue entrepreneurs" grasped an ecological imperative and mobilized concern among an increasingly widening circle *sans* much attention in the press. The environmental message did not appear on the agenda of the daily press very extensively until legislative acts, staged events, and accidents (see Rubin and Sachs, 1973; Molotch and Lester, 1975) lent it salience. We would also acknowledge, but cannot

discuss in detail here, that once on the press agenda, the environment is subject to becoming quite different from what it was perceived to be by the early positive environmental claims-makers attempting to construct for others a new social reality. Scholars, commentators and consumers differ extensively in their judgments of how well the press as a whole has done in "constructing the environment as a social problem," to use the Albrecht and Mauss (1975) terminology.¹⁷

To note just a few of the more recent and general proenvironmental trends: Mitchell (1978) reported on a national survey funded by Resources For the Future, designed to make as rigorous a test as possible of the hypothesis that "environmentalism is an enduring concern." The interviewing took place in 1978, just weeks after California had voted for Proposition 13 by a 2-to-1 margin, and the media had declared a "tax revolt" was spreading across the country. (During the interview period, the inflation rate topped 10 percent, and the well-publicized multimillion-dollar Tellico Dam stood uncompleted because of legislation protecting a tiny fish on the list of endangered species, the snail darter.) The conclusion was that "although the respondents are deeply concerned about inflation and taxes, their support of environmental protection is strong and unwavering, and their sympathy with the environmental movement is at a high level, with no sign of a backlash" (Mitchell, 1978:6). If the RFF survey results are accurate, it is hard to see how such a pervasive public attitude could have been developed without considerable attention to environmental issues in the daily press since 1970.

That opinion also seems supported by Klessig's (1979) even more recent study in Wisconsin. He found that about eight out of ten people were interested in environmental issues, nearly seven out of ten believed taxes should be used to support a flow of environmental information, and that most got their environmental information from the media, rather than from talking to a specialist or taking a course. They also said they applied media information in their homes, on their jobs, in community debates and in recreational pursuits.

The conventional wisdom of recent sociological research, however, has been to the effect that environmentalism is a somewhat elitist upper middle-class social movement especially of Democrats (see Bailey, 1973; Consantini and Hanf, 1972; Dunlap, 1975; Harry *et al.*, 1969; Koenig, 1975; McEvoy, 1972; Tognacci *et al.*, 1972). But Wohlwill (1979:85) has very recently argued that, at least in a recent California referendum on a coastal zone regulation act, "support for an environmental protection measure may cut across a wide spectrum of our society," irrespective of demographic data. The environment of environmentalism just may be changing, and it is quite probably in part because the press has finally added at least some environmental concepts to the press agenda.

What do reporters and editors themselves think of the state of the art of environmental reportage today? Like many other U.S. occupations and professions, contemporary journalism is ridden with dissent over the definition of responsible professional practice (Johnstone *et al.*, 1976). Rock's (1973) observation that the world is not arranged for reporting purposes is still quite true for work on environmental issues. Commoner's (1970) four "laws" of ecology are practically uncoverable in a stick of type: Everything is connected to everything else, everything has to go somewhere, there's no such thing as a free lunch, nature always bats last. So the purposive reporter, with what Leopold (1947:46) called "an ecological conscience," is still often caught between the rock of newsroom perceptions of what is "news" and the hard place of what he believes to be environmental reality. But some experienced environmental reporters are trying to

17. Valuable sources on this issue are: Dana (1969); Allen (1970); Barkley and Weissman (1970); Commoner (1970); Marx (1970); Faramelli (1971); Maloney and Slovansky (1971); Wiebe (1972); Althoff *et al.* (1973); Tichenor *et al.* (1973); Beane and Ross (1974); Novic and Sandman (1974); Sharma *et al.* (1975); Stamm *et al.* (1975); Dubos (1976); Johnstone *et al.* (1976); Bowman (1977, 1978); Stamm and Grunig (1977); Mitchell (1978); Williams (1978); Scherer and Larson (1978); Cowen (1979); Eisenbud (1979); Klessig (1979); Sleeper (1979); Schoenfeld (1980).

find ways through, while retaining a keen sense of the everyday constraints under which any newsperson works. Casey Bukro (Chicago Tribune) put it this way:

The environmental writer's job is to try to put it all together. Too often, stories are written with one point of view or a limited set of facts, instead of showing how things relate to each other. How often do we see these relationships explored by the media? I'd like to see more "big picture" reporting—the kind that follows chains of events so the reader can understand, for example, why the snail darter is more than a three-inch fish and represents some larger issues.

Given the changing and trendy nature of our business, environmental issues will always need covering by somebody, whatever they call us.

Do you give readers what they should know or something they will read? The challenge of the environmental beat is to convey a sense of immediacy and pertinence, usually by telling the story in human terms. . . . I try to find the human element while writing about an increasingly complex world of bewildering facts and figures. Every beat needs that, but this beat demands it (Schoenfeld, 1980).

NYT's Gladwin Hill stated even more strongly and sweepingly:

The environmental movement is probably the most extensive and profound event to hit the world since the Industrial Revolution—an entire new ethic, a tacit rejection of materialism in favor of a new scale of esthetic and artistic and spiritual satisfactions . . . not to mention the forestalling of human extinction through destruction of our ecosystem. It's a bell that can't be unrung (Schoenfeld, 1980).

SUMMARY

The environmental movement continues, then, and so does the work of the daily press. But we must end here by trying to summarize the main ideas we have brought out in various ways on the evolution of the environment as a social problem and the role of the press in that evolution. In doing so, we will rely extensively on Tuchman's (1978) general work on making news as constructing reality.

First, the news is captured in a large-meshed net, designed to catch big fish and let minnows slip through. In the early 1960's, positive environmental claims-makers were perceived as minnows, not fit for the regular reporting "beats," the strands in the news nets of that time, which did allow some space for various categories of news labeled "conservation." Class differences in styles of work and of discourse prevented reporters from more accurately perceiving the broad scope and deep significance of what the early environmental claims-makers were claiming was so important.

Second, the typical dispersion of reporters by territory, institutionalized specialization and topic mirrors the format of the newspaper itself—general front page, sports, women's, financial news and so on. Where was the early environmental news to be placed? It did not fit the standard format, where (unecologically) nothing is connected to anything. Some stories got put on the outdoor page, some in science columns, a few in the growing women's page (now "life styles" section), and some were mixed with consumer affairs. But most had no appropriate niche, except when an Ehrlich or a Commoner rated "op-edit" space by making especially emotional claims. These format conventions may well have reinforced any tendencies readers already had to see the environment in unrelated categories, keeping their social reality incompatible with that of environmental claims-makers. Even neutral event-oriented journalists can have unwitting effects like that on readers, effects related to the way newspapers have traditionally been produced.

Third, in Tuchman's effective metaphor, the news is a window on the world, and through its frame we learn of ourselves and others and how we are related. By 1969–70, the environmental imperative in all its manifest interdependencies had become so compelling of attention that the press simply had to respond more comprehensively. Hence the appearance of environmental reporters, environmental columns, even environmental sections. What had even very recently been virtually a shuttered window was, to quote Coleridge, now a "charmed, magic casement opening

on the foam of perilous seas." The view was actually even broader and often included with disappearing wilderness, urban congestion, air pollution, lung disease, energy shortages, oil spills and—on the horizon—global starvation or holocaust, all interconnected. The press did respond slowly to that broader view but now has a new lexicon for interpreting the environment, and seems to be taking a somewhat more active role in creating it. Such efforts, however, are constrained not only by conditions affecting how claims-makers try to reach the press but by traditions affecting how the press interprets such efforts to change concepts of social reality.

REFERENCES

- Albrecht, Stan L.
1972 "Environmental social movements and counter-movements." *Journal of Voluntary Action Research* 1 (October):2-11.
- Albrecht, Stan L. and Armond L. Mauss
1975 "The environment as a social problem." In Armond L. Mauss (ed.), *Social Problems as Social Movements*. Philadelphia: Lippincott.
- Allen, George
1970 "Ecology: Government control of the environment." *American Opinion* 13 (May):1-16.
- Althoff, Phillip, William H. Grieg and Francine Stuckey
1973 "Environmental pollution control attitudes of media managers in Kansas." *Journalism Quarterly* 50 (Autumn):666-672.
- Bailey, George Arthur
1973 "The public, the media, and the knowledge gap." Pp. 237-242 in Clay Schoenfeld (ed.), *Interpreting Environmental Issues*. Madison, Wis.: DERS.
- Barkley, Katherine and Steve Weissman
1970 "The eco-establishment." Pp. 26-41 in the Editors of *Ramparts* (eds.), *Eco-Catastrophe*. San Francisco: Canfield Press.
- Beane, Marjorie and John E. Ross
1974 "The role of technical information and decisions on a nuclear power plant." IES Technical Report No. 19, (September). Madison, Wis.: The Institute for Environmental Studies, University of Wisconsin-Madison.
- Becker, Howard S.
1963 *Outsiders: Studies in the Sociology of Deviance*. New York: Free Press.
- Blumer, Herbert
1971 "Social problems as collective behavior." *Social Problems* 18:298-306.
- Boorstein, Daniel
1961 *The Image: A Guide to Pseudo Events in America*. New York: Harper and Row.
- Bowman, James S.
1977 "Public opinion and the environment." *Environment and Behavior* 9, 3 (September):385-416.
1978 "American daily newspapers and the environment." *The Journal of Environmental Education* 10(1):2-11.
- Braden, William
1973 "LSD and the press." Pp. 210-225 in Cohen and Young (eds.), *The Manufacture of News*. Beverly Hills, Calif.: Sage.
- Breed, Warren
1955 "Social control in the newsroom: A functional analysis." *Social Forces* 33:326-335.
- Brennan, Matthew J.
1974 "Total education for the total environment." *The Journal of Environmental Education* 6(1):16-19. Statement delivered to the American Nature Study Society, AAAS, Montreal, Canada, 29 December 1964.
- Buttel, F. H., O. B. Martinson and W. L. Flinn
1974 *Dimension and Hierarchy in the Perception of Environmental Problems*. Unpublished paper, Departments of Sociology and Rural Sociology, University of Wisconsin-Madison.
- Cahn, Robert
1968 "Will success spoil our national parks." *Christian Science Monitor* (weekly May 1 through August 7, full-page spreads).
1979 *Footprints in the Planet: A Search for an Environmental Ethic*. New York: Universe Books.
- Caldwell, Lynton
1963 "Environment: A new focus on public policy." *Public Administration Review* 23(3):132-139.
- Carter, President Jimmie
1978 *New York Times*, 8 June, A17.
- Catton, William R., Jr. and Riley E. Dunlap
1978 "Environmental sociology: A new paradigm." *The American Sociologist* 13 (February):41-49.

- Chaney, David
 1977 "Fiction in mass entertainment." Pp. 440-457 in James Curran, Michael Gurevitch and Janet Woolcott (eds.), *Mass Communication and Society*. London: Arnold.
- Chase, Dennis J.
 1972 "Eco-journalism and the failure of crisis reporting." *The Quill* (October):4-7.
- Cirino, Robert
 1971 *Don't Blame the People*. Los Angeles: Diversity Press.
- Clary, Bruce B., Charles E. Roe and Emilie Swearingen
 1977 "Environmental priorities of opinion-makers." *Environmental Affairs* 6(1):33-61.
- Cohen, Bernard C.
 1963 *The Press and Foreign Policy*. Princeton, N.J.: Princeton University Press.
- Cohen, Stanley and Jock Young (eds.)
 1973 *The Manufacture of News*. Beverly Hills, Calif.: Sage.
- Committee on Interior and Insular Affairs
 1968 *Joint House Senate Colloquium to Discuss a National Policy for the Environment*, 90th Congress, Second Session, 17 July, Committee Print.
- Commoner, Barry
 1970 Quoted in *The Environment Monthly*, July, p. 5.
- Consantini, Edmond and Kenneth Hanf
 1972 "Environmental concern and Lake Tahoe." *Environment and Behavior* 23 (June):209-242.
- Cooke, Paul A.
 1978 Bell Telephone Directory Editor, Personal Communication to Senior Author. 12 May.
- Cowen, Robert C.
 1979 "What environmental message?" *Christian Science Monitor*, 28 March:15.
- Cutlip, Scott M. and John C. Center
 1978 *Effective Public Relations*. Englewood Cliffs, N.J.: Prentice-Hall.
- Dana, Samuel T.
 1969 "Strengthening environmental communications." *The Journal of Environmental Education* 1(1) (Summer):13-14.
- Dangerfield, Linda A., Hunter P. McCartney and Ann T. Starcher
 1975 "How did mass communication, as sentry, perform in the gasoline 'crunch'?" *Journalism Quarterly* 52:316-320.
- Darling, Sir Frank Fraser
 1969 *Wilderness and Plenty*. Washington: The Conservation Foundation.
- Darling, F. Fraser and John P. Milton (eds.)
 1965 *Future Environments of North America*. New York: Natural History Press.
- Dasmann, Raymond
 1959 *Environmental Conservation*. New York: Wiley.
- DeFleur, Melvin L. and Sandra Ball-Rokeach
 1975 *Theories of Mass Communication*. New York: McKay.
- Dennis, Everette E.
 1978 *The Media Society*. Dubuque, Iowa: Brown.
- Donohue, G. A., P. J. Tichenor and C. N. Olien
 1972 "Gatekeeping: Mass media systems and information control." Pp. 41-69 in Gerald Kline and P. J. Tichenor (eds.), *Current Perspectives in Mass Communication Research*. Beverly Hills, California: Sage.
- Dubos, Rene
 1976 "The despairing optimist." *The American Scholar* (Spring):168-172.
- Dunlap, Riley E.
 1975 "The impact of political orientation on environmental attitudes and actions." *Environment and Behavior* 7:428-454.
- Dunlap, Riley E. and Richard P. Gale
 1972 "Politics and ecology: A political profile of student eco-activists." *Youth and Society* 3 (July):379-397.
- Editor and Publisher*
 1970 "Environment Writers." 8 August.
- Ehrlich, Paul and Ann Ehrlich
 1970 *Population/Resources/Environment*. San Francisco: Freeman.
- Eisenbud, Merrie
 1979 *Environment, Technology, and Health: Human Ecology in Historical Perspective*. New York: New York University Press.
- Elliott, Phillip
 1974 "Uses and gratifications research: A critique and a sociological alternative." Pp. 249-268 in Jay Blumer and Elihu Katz (eds.), *The Uses of Mass Communications*. Beverly Hills, California: Sage.
- 1977 "Media organization and occupations." Pp. 142-173 in James Curran, Michael Gurevitch and Janet Woolcott (eds.), *Mass Communication and Society*. London: Arnold.

- Epstein, Edward J.
1973 *News from Nowhere*. New York: Vintage (Random House).
- Ezersky, Eugene
1972 "Priorities of environmental concern." *Journal of Environmental Education* 3(4):11-12.
- Fairfax, Sally K.
1978 "A disaster in the environmental movement." *Science* 199 (Feb.):743-747.
- Faramelli, Norman J.
1971 "Perilous links between economic growth, justice, and ecology: A challenge for economic planners." *Environmental Affairs* 1 (April):218-227.
- Finn, Terence T.
1973 "Conflict and compromise: Congress makes a law." Unpublished doctoral dissertation, Georgetown University.
- Funkhouser, G. Ray
1973 "Trends in media coverage of the '60's." *Journalism Quarterly* 50:533-538.
- Galtung, Johan and Mari Ruge
1973 "Structuring and selecting news." Pp. 62-72 in Cohen and Young (eds.), *The Manufacture of News*. Beverly Hills, Calif.: Sage.
- Gans, Herbert J.
1972 "The famine in American mass-communication research." *American Journal of Sociology* 77: 697-705.
1979 *Deciding What's News*. New York: Pantheon.
- Gerbner, George
1972 "Communication and social environment." *Scientific American* 227:153-160.
- Gold, Roger E.
1978 "Environmental Education within the Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln." Pp. 228-235 in Schoenfeld and Disinger (eds.), *Environmental Education in Action—II*. Columbus, Ohio: ERIC.
- Griffin, Robert J.
1977 "Environment: Covering the urban milieu." Unpublished master's thesis, University of Wisconsin-Madison.
- Gurevitch, Michael and Jay G. Blumler
1977 "The mass media and politics." Pp. 270-290 in James Curran, Michael Gurevitch and Janet Wolloccott (eds.), *Mass Communication and Society*. London: Arnold.
- Gusfield, Joseph R.
1963 *Symbolic Crusade: Status Politics and the American Temperance Movement*. Urbana: University of Illinois Press.
- Hall, Stuart
1973 "A world at one with itself." Pp. 85-94 in Cohen and Young (eds.), *The Manufacture of News*. Beverly Hills, Calif.: Sage.
- Halmos, Phillip (ed.)
1969 *The Sociology of Mass-Media Communicators*. Sociological Review Monograph 13.
- Harris, Louis and Associates
1970 "The public's view of environmental problems in the State of Oregon." Study No. 1970, prepared for Pacific Northwest Bell Telephone Company.
- Harrison, J. and P. Sarre
1975 "Personal construct theory in the measurement of environmental images." *Environment and Behavior* 7(1):3-58.
- Harry, Joseph, Richard P. Gale and John Hendee
1969 "Conservation: An upper-middle class social movement." *Journal of Leisure Research* 1 (Summer):236-254.
- Hartmann, Paul and Charles Husband
1971 "The mass media and racial conflict." *Race* 12(3) (January):268-282.
- Hays, Samuel P.
1959 *Conservation and the Gospel of Efficiency*. Cambridge, Mass.: Harvard University Press.
- Holcomb, Ronald
1977 "Environmental news coverage on Wisconsin daily newspapers." Unpublished master's thesis, University of Wisconsin-Madison.
- Horn, B. Ray
1969 "A factor analysis of attitudes toward the term 'Outdoor Education.'" *Journal of Outdoor Education* 4(1):15-17.
- Hungerford, Steven E. and James B. Lemert
1973 "Covering the environment: A new 'Afghanistanism'?" *Journalism Quarterly* 50 (Summer):475-508.
- Johnstone, John W. C., Edward J. Slawski and William W. Bowman
1976 *The News People*. Urbana, Ill.: University of Illinois Press.

- Kaufman, Ira
1972 "Change management: The process and the system." In Gerald Zaltman, Philip Kotler and Ira Kaufman (eds.), *Creating Social Change*. New York: Irvington.
- Kienitz, Richard C. and George P. Koshallek
1966 "The spreading menace, an important series that chronicles pollution of Wisconsin's waterways, with color photos of our 'stinking water.'" *The Milwaukee (Wisconsin) Journal, Picture Journal* Section, 17 April, 24 April, 1 May.
- Klessig, Lowell
1979 "Survey finds concern high for Wisconsin environment." *University of Wisconsin-Extension Features*, March.
- Koenig, D. J.
1975 "Additional research on environmental activism." *Environment and Behavior* 7:472-485.
- Kotler, Philip
1972 "The elements of social action." In Gerald Zaltman, Philip Kotler and Ira Kaufman (eds.), *Creating Social Change*. New York: Irvington.
- Lang, Kurt and Gladys Engel Lang
1969 *Television and Politics*. Chicago: Quadrangle Books.
- Leopold, Aldo
1933 "Conservation ethic." *Journal of Forestry* 31(6):634-643.
1947 "The ecological conscience." *Bulletin of the Garden Club of America* (September):46-53.
- Linsky, Arnold S.
1971 "Theories of behavior and the image of the alcoholic in popular magazines, 1900-1966." *Public Opinion Quarterly* 34(Winter):573-581.
- Lyman, Stanford, M., John M. Johnson and Carol A. B. Warren
1973 "American social problems." Pp. 472-497 in Jack D. Douglas (ed.), *Introduction to Sociology*. New York: Free Press.
- Maloney, John C. and Lynn Slovonsky
1971 Quoted in Leslie L. Roos, Jr. (ed.), *The Politics of Ecosuicide*. New York: Holt, Rinehart and Winston, pp. 64-78.
- Marx, Leo
1970 "American institutions and ecological ideals." *Science* 170:945-952.
- Mauss, Armand L.
1975 *Social Problems as Social Movements*. Philadelphia: Lippincott.
- McCombs, Maxwell and Donald L. Shaw
1972 "The agenda-setting function of the mass media." *Public Opinion Quarterly* 36 (Summer)2:176-187.
- McEvoy, James, III.
1972 "The American concern for the environment." Pp. 214-236 in W. R. Burch, Jr., Neil H. Cheek, Jr. and Lee Taylor (eds.), *Social Behavior, Natural Resources, and the Environment*. New York: Harper and Row.
- McQuail, Dennis
1977 "The influences and effects of the mass media." Pp. 70-94 in James Curran, Michael Gurevitch and Janet Woolcott (eds.), *Mass Communication and Society*. London: Arnold.
- Merrill, John C.
1978 *The Elite Press*. New York: Pitman.
- Mitchell, R. C.
1978 "The public speaks again: A new environmental survey." *Resources for the Future* 60 (Sep-Nov): 1-6.
- Molotch, Harvey and Marilyn Lester
1974 "News as purposive behavior." *American Sociological Review* 39:101-112.
1975 "Accidental news: The great oil spill." *American Journal of Sociology* 81:235-260.
- Morrison, Denton E., Kenneth E. Hornback and W. Keith Warner
1972 "The environmental movement: Some preliminary observations and predictions." Pp. 259-279 in William R. Burch, Jr., Neil H. Cheek, Jr. and Lee Taylor (eds.), *Social Behavior, Natural Resources, and the Environment*. New York: Harper and Row.
1974 "Environment: A bibliography of social science and related literature." *Socio-Economic Environmental Studies Series EPA-66/5-74-011*. Washington, D.C.: U.S. Government Printing Office.
- Murch, Arvin W.
1971 "Public concern for the environment." *Public Opinion Quarterly* 35 (Spring):102-106.
- Nash, Roderick
1978 *The American Environment*. New York: Addison-Wesley.
- National Research Council
1962 *Natural Resources: A Summary Report to the President of the United States*, Publication 1000. Washington, D.C.: Government Printing Office.
- National Staff of Environmental Action
1970 *Earth Day: The Beginning*. New York: Arno Press.

- Novic, Kenneth and Peter M. Sandman
1974 "How use of the mass media affects views on solutions to environmental problems." *Journalism Quarterly* 51 (Autumn):448-452.
- Nunnally, Jum C.
1961 *Popular Conceptions of Mental Health*. New York: Holt, Rinehart and Winston.
- Odum, Eugene P.
1973 *Ecology*. New York: Holt, Rinehart and Winston.
- Omohundro, William G.
1977 "Journalists assess environment's future." *Environment Midwest, EPA Region V Newsletter*, June:3-5.
- O'Meara, Daniel J.
1978 "Coverage of environmental issues in two newspapers, 1962-1977." Unpublished master's thesis, The Ohio State University, Columbus.
- Perlinski, Jerome
1975 "Positive and negatives." Pp. 49-51 in Rudolph Schafer and John Disinger (eds.), *Environmental Education Perspectives and Prospectives*. Columbus, Ohio: ERIC/SMEAC.
- Pryor, Larry
1972 "Covering the ecology thicket." *The Journal of Environmental Education* 4(2):55-56.
- Reid, Barbara
1970 "Whither urban environmental education?" *Journal of Environmental Education* 2(2):28-29.
- Rock, Paul
1973 "News as eternal recurrence." Pp. 73-78 in Cohen and Young (eds.), *The Manufacture of News*. Beverly Hills, Calif.: Sage.
- Roshier, Bob
1973 "The selection of crime news by the press." Pp. 28-39 in Cohen and Young (eds.), *The Manufacture of News*. Beverly Hills, Calif.: Sage.
- Roth, Charles E.
1978 "Off the merry-go-round, on the escalator." Pp. 12-22 in William B. Stapp (ed.), *From Ought to Action in Environmental Education*. Columbus, Ohio: ERIC/SMEAC.
- Rubin, David, *et al.*
1973 "Environmental information." In *Annals of the New York Academy of Sciences*. New York: NYAC.
- Rubin, David M. and David P. Sachs (eds.)
1973 *Mass Media and the Environment*. New York: Praeger.
- Scheff, Thomas J.
1968 "Negotiating reality: Notes on power in the assessment of responsibility." *Social Problems* 16(1) (Summer):3-17.
- Schnaiberg, Allan
1973 "Politics, participation, and pollution: The environmental movement." Pg. 305 in John Walton and D. C. Carne (eds.), *Cities in Change: Studies in the Urban Condition*. Boston: Allyn and Bacon.
- Schoenfeld, Clay
1969 "What's new about environment education?" (Editorial) *Journal of Environmental Education* 1(1):1.
1979 "The press and NEPA: The case of the missing agenda." *Journalism Quarterly* (forthcoming).
1980 "Ecological conscience in the newsroom: The environment and behavior of environmental reporters." *Columbia Journalism Review* (forthcoming).
- Schoenfeld, Clay and John Disinger (eds.)
1978 *Environmental Education in Action—II: Case Studies of Environmental Studies Programs in Colleges and Universities Today*. Columbus, Ohio: ERIC/SMEAC.
- Schoenfeld, Clay and John E. Ross
1978 "The Environmental Communications Master's Programs at the University of Wisconsin-Madison." Pp. 452-460 in Schoenfeld and John Disinger (eds.), *Environmental Education in Action—II: Case Studies of Environmental Studies Programs in Colleges and Universities Today*. Columbus, Ohio: ERIC/SMEAC.
- Sellers, Leonard and David W. Jones, Jr.
1973 "Environment and the news media." *The Journal of Environmental Education* 5(1):51-57.
- Sewell, W. R. Derrick and Harold D. Foster
1971 "Environmental revival: Promise and performance." *Environment and Behavior* 3(2) (June): 123-133.
- Sharma, Navin C., Joseph E. Kivlin and Frederick C. Fliegel
1975 "Environmental pollution: Is there enough public concern to lead to action?" *Environment and Behavior* 7, 4 (December):455-471.
- Shepard, Paul and Daniel McKinley
1969 *The Subversive Science*. Boston: Houghton-Mifflin.
- Sills, D. L.

- 1975 "The environmental movement and its critics." *Human Ecology* 3(1):1-41.
- Simon, Rita J.
1971 "Public attitudes toward population and pollution." *Public Opinion Quarterly* 35:93-99.
- Sleeper, David
1979 "Do the media too often miss the message?" *Conservation Foundation Newsletter*, January, full issue.
- Spector, Malcolm and John I. Kitsuse
1977 *Constructing Social Problems*. Menlo Park, Calif.: Cummings.
- Stamm, Keith
1970 "Two orientations to the conservation concept of scarcity." *The Journal of Environmental Education* 1(4):134-139.
- Stamm, Keith R., Brenda Dervin and Robert Laing
1975 "Applying communication research to environmental policy decisions." Paper presented to Theory and Methodology Division, Association for Education in Journalism, Toronto, Canada. Available from School of Journalism and Mass Communication, University of Washington, Seattle.
- Stamm, Keith R. and James E. Grunig
1977 "Communication situations and cognitive strategies in resolving environmental issues." *Journalism Quarterly* 54(4) (Winter):713-720.
- Tichenor, P. J., G. A. Donohue and C. N. Olien
1973a "Mass communication research: Evolution of a structural model." *Journalism Quarterly* 50: 419-425.
- Tichenor, P. J., G. A. Donoghue, C. N. Olien and J. K. Bowers
1973b "Environment and public opinion." Pp. 271-275 in Clay Schoenfeld (ed.), *Interpreting Environmental Issues*. Madison, Wis.: DERS.
- Tognacci, Louis N., Russell H. Weigel, Marvin F. Wideen and David T. A. Vernon
1972 "Environmental quality: How universal is public concern?" *Environment and Behavior* 4., 1 (March):73-86.
- Trefethen, James B.
1975 *An American Crusade for Wildlife*. New York: Boone and Crockett Club.
- Tuchman, Gaye
1973 "Making news by doing work: Routinizing the unexpected." *American Journal of Sociology* 79(1):111-113.
1978 *Making News: A Study in the Construction of Reality*. New York: Free Press.
- Tunstall, James (ed.)
1970 *Media Sociology*. Urbana: University of Illinois Press.
- Udall, Stewart
1963 *The Quiet Crisis*. New York: Holt, Rinehart and Winston.
- U.S., President's Science Advisory Committee, Environmental Pollution Panel.
1965 *Restoring the Quality of the Environment*. Washington: GPO.
- Van Buren, Paul M.
1972 *The Edges of Language*. New York: Macmillan.
- Weiss, Walter
1968 "Effects of the mass media of communication." Pp. 77-195 in Gardner Lindzey and Stanley Aronson (eds.), *The Handbook of Social Psychology*, Vol. 5. Reading, Mass.: Addison Wesley.
- Westergaard, John
1977 "Power, class, and the media." Pp. 95-115 in James Curran, Michael Gurevitch and Janet Wolloccott (eds.), *Mass Communication and Society*. London: Arnold.
- Wiebe, G. D.
1972 "Mass media and man's relationship to his environment." *Journalism Quarterly* 50(3) (Autumn): 426-432, 446.
- Williams, Thomas F.
1978 Quoted in Clay Schoenfeld and John Disinger, "Environmental education today." *Environmental Science and Technology* (January):6.
- Witt, William
1974 "The environmental reporter on U.S. daily newspapers." *Journalism Quarterly* 51(3):697-704.
- Wohlwill, J. F.
1979 "The social and political matrix of environmental attitudes." *Environment and Behavior* 11:71-85.
- Young, Jock
1971 "Drugs and the mass media." *Drugs and Society* 1 (November):14-18.
- Zald, Mayer N. and Roberta Ash
1966 "Social movement organizations: Growth, decay, and change." *Social Forces* 44 (March):327-341.

Zimmerman, Donald E., Clifford Scherer and Mark Larson

1978 "The use of conservation and environmental mass media by Pennsylvania editors." *The Journal of Environmental Education* 10(2) (Winter):43-48.

Zinn, Donald J.

1970 *At War with Waste*. Washington, D.C.: National Wildlife Federation.